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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/899,412 | 07/05/2001 | Neal R. Cutler | CUTLER-06326 | 3297 |

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| EXAMINER | |
|---|---|
| JOYNES, ROBERT M | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1615 | |

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/899,412 | CUTLER, NEAL R. | |
| | Examiner | Art Unit | |
| | Robert M. Joynes | 1615 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *06 May 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-8 and 13* is/are pending in the application.

4a) Of the above claim(s) *9-12,14 and 15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

Receipt is acknowledged of applicant's Amendment and Responses filed on May 6, 2004.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 4-8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caruso (US 6043244). Caruso teaches a method treating migraines wherein dihydroergotamine is administered with an antimigraine-potentiating amount of an NMDA receptor antagonist (Col. 3, lines 14-58). Caruso contemplates all modes of administration (Col. 6, lines 3-67; Col. 7, lines 1-31). Specifically, sublingual administration is taught in the form of a tablet, drop or lozenge (Col. 6, lines 25-28). Sprays, pastes or gels are also taught by Caruso (Col. 6, lines 30-35, 63-65). The oral tablets further comprise additives such as calcium carbonate, calcium phosphate or

kaolin (Col. 6, lines 18-24). Additional active agents may be added to the composition (Col. 8, lines 12-27). Caruso recites DHE and its pharmaceutically acceptable salts (Col. 3, lines 14-40). It is the position of the Examiner that any form of DHE, the salt or the base would be acceptable for the formulation of Caruso.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to formulate a sublingual composition that contains DHE and a pH-adjusting agent. Elimination of an ingredient as well as its function does not impart patentability to a well-known formulation in the absence of said ingredient.

One of ordinary skill in the art would have been motivated to do this to provide a method of treating migraines that is effective and achieves the effect in a short amount of time to bring quick and direct relief to the host.

Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Claims 1, 2, 4-8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plachetka (US 5872145). Plachetka teaches a method of treating migraines wherein an effective amount of a 5-HT agonist and NSAID are administered to a patient (Col. 13, Claim 1; Col. 3, lines 64-67). The 5-HT agonists include all types of 5-HT agonists, more specifically, 5-HT1, 5-HT1B and 5-HT1D agonists (Col. 8, lines 1-20). Dihydroergotamine mesylate is one such example (Col. 8, lines 1-20). The combination of active agents can be administered parenterally, enterally and topically and can be administered with appropriate carrier as well as other pharmaceutically

acceptable excipients (Col. 12, line 31 – Col. 13, line 19). The dosage form can be in the form of quick-dissolve tablet (Col. 13, Claim 17).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to formulate a sublingual composition that contains DHE and a pH-adjusting agent. Elimination of an ingredient as well as its function does not impart patentability to a well-known formulation in the absence of said ingredient.

One of ordinary skill in the art would have been motivated to do this to provide a method of treating migraines that is effective and achieves the effect in a short amount of time to bring quick and direct relief to the host.

Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Caruso or Plachetka in combination with Azria et al. (US 4758423) or Plachetka et al. (US 6495535, hereinafter '535). The teachings of Caruso and Plachetka are discussed above. Neither reference teaches that the DHE is in the base form. It is the position of the Examiner that any form of DHE would be effective in treating migraines. No criticality is seen in DHE being in the form of a base. Applicants have not shown any unexpected results from the base form. Further, the secondary references teach that the base form of DHE is known to be administered for treating migraines (Azria, Col. 3, lines 32-39; Plachetka, Col. 4, lines 1-4).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use any form of DHE is a method of treating migraines, including the base form.

One of ordinary skill in the art would have been motivated to do this to provide a method treating migraines that is effective and achieves the effect in a short amount of time to bring quick and direct relief to the host.

Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

***Response to Arguments***

Applicant's arguments filed May 6, 2004 have been fully considered but they are not persuasive. Applicants argue that the prior art does not teach pH modulating agent. The Examiner would like to point out that both references teach ingredients/components of the formulations that modulate the pH of the environment in which they are placed. Caruso teaches that components such as calcium carbonate can be used (Col. 6, lines 18-24). Further, Plachetka teaches that DHE can be administered with appropriate carrier as well as other pharmaceutically acceptable excipients, including buffers, which can modulate pH (Col. 12, line 31 – Col. 13, line 19). Therefore, applicants' arguments are found unpersuasive.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See

MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Joynes whose telephone number is (571) 272-0597. The examiner can normally be reached on Mon.-Thurs. 8:30 - 6:00, alternate Fri. 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K. Page can be reached on (571) 272-0602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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